

FOSTERING UNIVERSAL MOTIVATION



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MAKING USE OF RESEARCH RESULTS TO IMPROVE MY TEACHING PRACTICES

CONTEXT

Many students experience difficulties during their academic progress. For example, dealing with a failing grade on an exam for the first time can be challenging. Most students come out stronger, integrating this experience as a learning process to better adapt to subsequent challenges. However, other students find themselves on an academic journey rife with hurdles, experiencing many setbacks or failing to benefit from factors that promote success (such as parents with advanced education or a comfortable socioeconomic level). The sources of the obstacles to be overcome at school are many and varied, ranging from learning disabilities (diagnosed or not) to personal or organizational difficulties. As teachers, it is difficult for us to develop pedagogical intervention strategies that can bring together the wide range of realities and needs not only for students at risk of failure, but for all our students.

Personally, I decided to take an interest in my students on their arduous path towards generating and maintaining motivation at school. For the last ten years, as a researcher I have been studying the motivational profile of college students who meet with great difficulty in achieving success at school. This is because I think that by properly identifying their motivational profile, I will be able to better support my students in their learning as well as enrich their college experience. As a teacher, I use the information that comes from research findings and transfer it to my practice. In doing so, I adjust how I intervene, a process that some people refer to as *knowledge transfer* (Dagenais and Ridde, 2015, FRQSC, 2011; 2006). In this article, I wish to share the fruit of my observations and the thoughts that, despite offering more questions than answers, have led me to improve my teaching practices by relying on research results related to motivation and engagement.

ENGAGEMENT: BEING PRESENT IN MIND AND BODY

Academic motivation—one of the important factors leading to success—plays a major role in engagement. Therefore, student motivation is a very good predictor of scholastic performance (Cabot, 2010; Quaye and Harper, 2015). Here we must make the distinction between *motivation* and *engagement*, two concepts that are intimately related. I like to simplify things as follows: motivation is “wanting to do” while engagement is “doing it.” Consequently, we can be motivated without engaging ourselves (think about our good New Year’s resolutions), but it is very rare that we can be engaged without motivation.

Accordingly, engagement stems from some form of motivation. Numerous works distinguish behavioural engagement, cognitive engagement and affective engagement (e.g., Fredricks, Blumenfeld, and Paris, 2004). The last element remains a source of debate, involving certain conceptual overlaps with aspects that concern motivation (such as interest). For this reason, I choose not to dwell on affective engagement in this text.

Introduced in different works under the term *participation* (Barbeau, Montini, and Roy, 1997), the *behavioural engagement* of a student involves that which is observable. This includes being present in class, arriving on time, raising a hand, asking

a question, completing the requested exercises, etc. We can observe engagement behaviours of different qualitative levels, like on a continuum, ranging from simply following the mandatory instructions handed out by the teacher to taking the initiative to get involved in optional school tasks. Among the students identified at the beginning of the session as being most at risk of failing, those who succeed at the end of the session can be distinguished by their behavioural engagement (Appleton, Christenson, and Furlong, 2008).

Cognitive engagement involves mental activities associated with learning, activities that are therefore not visible. This type of engagement (also known as *intellectual investment*) is more abstract and complex. For example, this can include a student’s efforts to be attentive in class, to make connections between knowledge, to realize that there is an element they do not understand and focus on it, to plan an essay, to imagine how to apply their new knowledge, etc. It can be presumed that it is associated with a better quality of learning than the mere presence of behavioural engagement (being present in mind and body). Students who indicate a high level of cognitive engagement are those who use metacognitive strategies, who have the desire to go further than what is required by their teacher and who face difficulties in a constructive way (Barbeau, Montini and Roy, 1997).



How then can we help students take an active part in their learning? How can we promote behavioural and cognitive engagement in our classrooms? Some students need to learn how *to learn*,¹ that is, to be explicitly shown how to study, read, manage their time, self-regulate during learning, etc. However, this is only effective for students who are already motivated to invest the energy needed to learn. All students are motivated to succeed, but not all are necessarily motivated *to learn*.² It therefore becomes a question of stimulating the motivation to learn among learners.

► MOTIVATION, A LEVER OF ENGAGEMENT

Motivation is a broad concept, composed of various elements (Cabot, 2016). In this article, I will focus on the following three components: the perception of usefulness attributed to a task, the sense of competency to perform the task and the interest in the task (Viau, 2009). By exploring these specific elements, it is possible to better understand their influence on the motivational profile of students and thus to adjust our teaching interventions.

■ THE PERCEPTION OF USEFULNESS

The perception of usefulness attributed to a task depends on the relevance between this task and the person's objectives (Jacobs and Eccles, 2000). It stems from a cognitive assessment of this compatibility. If a student perceives the learning task to accomplish as useful to their objectives, this perception will have a positive influence on their motivation to complete the task. Logically, as teachers, we can help our students perceive the usefulness of the activities we suggest by showing them examples of concrete situations in which the knowledge to be learned and the skills to be developed will be of use to them.

However, for students identified as "likely to fail," given their more contentious path, the situation is different. Among other things, repeating to a student who has significant difficulties in French that this discipline will be useful in life, or by multiplying the examples of situations in which they can benefit from the mastery of French, the teacher will only increase the anxiety and stress experienced by their student. Consequently, instead of motivating the student, it will demotivate them, even though our teaching intentions were positive. Hulleman *et al.* (2010) conducted a study to identify effective ways to stimulate the perception of usefulness among students at risk of failure. They found that by inviting them to formulate examples of their own reality where their learning might be useful to them, their perception of the task's usefulness and interest in learning increased.

■ THE SENSE OF COMPETENCY

The sense of competency is also a cognitive motivational variable. It is a person's own assessment of their ability to do something well (Bouffard *et al.*, 2006). Of course, if a student feels competent to perform a task, this impression will positively influence their motivation to accomplish it. The sense of competency is in fact based on four components: a person's past successes, examples of the success stories of their peers, the credible encouragement they receive, and their understanding of their emotional and physiological state as an indicator of competency (Usher and Pajares, 2008). The first element, to have successful experiences, is the one that has the greatest effect on the sense of competency. It thus becomes a question of stimulating the students' sense of competency with regards to subject matter by making them experience successes, such as by splitting up our assessments and by highlighting the positive elements of their productions.

Again, this can work for more mainstream students who are experiencing temporary challenges. However, during my years of research with students at risk of failing, I noted that many of them did not give credibility to their too infrequent successful experiences or to the encouragement they received. For example, one day a student reacted to their success in a French remedial class exercise by saying: "It's no wonder I passed this test, a primary school child could have done it!" I have not yet found a way to stimulate a sense of competency among these students; for now, the problem remains unsolved.

■ INTEREST

Interest is the only motivational variable composed of both cognitive processes and emotions (Ainley, 2006; Hidi, 2006).³ Interest represents the pleasure felt in doing a task, whether it is an affective pleasure, like being surrounded by friends, or an intellectual pleasure, such as finding a new source of information on a subject that fascinates us. Given its strong emotional component, some ten years back I intuitively held the belief that interest was perhaps a good gateway to the motivational dynamics of unmotivated students or those at risk of failing. That was why I focused a lot of my scientific research

¹ This subject is in itself an entirely different field of knowledge, which could be the topic of another article!

² Each of us may understand this subtlety, because we all experience it in one form or another in our lives. Personally, I am motivated to run a half-marathon, but little motivated by the arduous training of several weeks that this involves.

³ Some researchers look at interest as a component of the value attributed to a task (the Expectancy-value Theory model of Eccles, Tonks and Lutz Klauda, 2009); others study it in a more specific manner (Hidi and Renninger, 2006).



on this variable (Cabot, 2017). I relied on a recent theory of interest-development that states that it is possible to develop and foster a non-existent interest based on a pre-existing element of interest (Hidi and Renninger, 2006). To stimulate motivation, we must consider the interests our unmotivated students already have. I tested this idea twice with those at risk of failing.

The first time (Cabot, 2010, 2012), in collaboration with a French teacher, I organized a pairing with a course deemed interesting from the beginning by students (*Renforcement en français-REF*) and a course that they liked (*Psychology of sexuality*) (Cabot and Cloutier, 2010). The results were interesting. They showed an increased interest in the REF course during the interdisciplinary experimentation session, as well as better student performances in French compared to a control group that followed the REF course without interdisciplinary conditions. The second time I undertook a collaborative project (Cabot and Lévesque, 2014b), the entire REF course (uninteresting element according to the students) was planned in a digital learning environment (interesting element). The results once again showed an increase in interest in the digital version of the REF course and better performances in French, compared to a control group following the REF course in a traditional way (Cabot and Lévesque, 2014a). Moreover, during this second study, a feeling of usefulness and a sense of competency (common correlates of interest) did not increase. This observation follows the same path as my initial intuition: interest seems to be the cornerstone of a motivation to learn for students at risk of failing.

As experts in our field, as teachers, we must take the time to reflect on our methods and use our creativity to find ways to improve our teaching practices.

FOSTERING THE SENSE OF USEFULNESS, FEELING OF COMPETENCY AND INTEREST AMONG ALL STUDENTS

Certainly, we must continue to explore the specific motivational profile of students at risk of failure. Even though knowledge continues to be developed in this field, I believe that we must already take into account what we know today to adjust our teaching practices. With the “universal design for learning” currently in vogue, I like to speak of the “universal fostering of motivation.” I feel that it is possible to adjust our practices by especially considering the motivational needs of the students

at risk of failing, all while helping all the students to benefit from these changes (a hypothesis that would be interesting to verify empirically!). Being experts in our field and our course content, we as teachers must take the time to reflect on our methods and use our creativity to find ideas to improve our teaching practices. For my part, drawing inspiration from research results in education over the past few years, I gradually tweaked the organization of the synthesis work that I propose in an introductory psychology course (*Initiation à la psychologie*), with the goal being to stimulate the perception of usefulness, the sense of competency and the interest of all my students.

PROBLEMATIC EDUCATIONAL SETTING

The *Initiation à la psychologie* course is intended for first-year social science students. Most of the students are in their first term, coming directly from high school, and they must develop their self-learning skills. Some students are facing significant difficulties on the road to success. I like this course, because it is planned in such a way as to touch upon a different field of psychology every week: biopsychology, learning, memory, emotions, stress, etc. Throughout the course, in addition to exams taken in class, I ask my students to do synthesis work. Initially, the goal was to help students apply the theoretical content acquired in the course to their reality. Through this work, I hoped to help them learn “the duties of a college student” and to succeed in their studies. I asked them to write one or two summary paragraphs on the theoretical knowledge of a course (for example, the one on memory). They were then tasked with writing one or two others to transfer their knowledge to their context as a student, showing how these can be used in understanding their reality (for example, explaining the dangers of last-minute studying through its consequences on memory recovery during an examination). They had to write a weekly “synthesis-application” for the different fields of psychology studied. At the end of the term, all that was left was to string these writings together, add an introduction and a conclusion, and that was it! At least, I thought so...

In fact, it did not really go as I had wished. Almost all of the students waited until the end of the term to draft all of the work assignments, which resulted in poorly written, low-quality work that did not meet the evaluation criteria that students had been aware of since the beginning of the term. This confirmed the lack of autonomy in the learning process of first-year, and especially first term, college-level students that is reported in the literature (Howe, 2009). I had catastrophic success rates, but I refused to lower my requirements. I felt like I was headed down a dead end street.



TRANSFERRING RESEARCH RESULTS TO MY PRACTICE

As I learned more and more about the research results on motivation, I began to think about the possibilities to foster motivation among my students regarding the tasks I asked of them. The first modification I made involved interest and usefulness. I thus endeavoured to increase the value given to this work by the students. Instead of imposing the purpose of the task (their student reality), I asked them to think about any goal they would like to reach in the next three months and to focus their work on this subject. I explicitly advised them to choose an objective that really interested them and that could be useful to them, so as to support their motivation to do the work.

I found that far fewer students than I thought choose a school-based goal. Several students focused on the goal of improving their health, such as increasing how often they exercised, eating more fruits and vegetables, or stopping smoking. Overall, the goals were very diverse, ranging from financial savings to improving their family relations. Of course, to avoid creating any anxiety, I told them that they did not have to achieve their goal in order to get the job done, because what I was evaluating was their ability to apply the learning they had in the course to the experience related to the pursuit of their goal. Ultimately, they could even lie about their goal, which made them laugh!

I then noticed a considerable increase in interest in this work, because since this change many students would come to ask me questions about their application ideas during or after class (for example: “Can I say that when I jog, my brain produces endorphins?” My answer: “Of course, and use the opportunity to explain the effects endorphins have on your body!”). In addition, these students handed in a final assignment of much better quality than those who had waited until the last minute to do it, which was consistent with the research results linking interest to engagement and performance. At that point I was very happy with this improvement, but it still only touched fewer than half of my students.

The following year I took a risk. I decided to offer a “free” pre-correction of students’ work (that is, not assigning any grade—it was in fact a formative assessment). I wanted to try to influence their sense of competency. This was a risk, because it was going to involve a lot of work on my part, specifically since it concerned an individual task. I offered to correct a few “synthesis-application” paragraphs for the content of a single course during reading week. The students had to write them before leaving for the holidays in order to receive feedback. I told them that I wanted to receive this first section of the

work in its completed state (that is, final draft, printed and with French grammar corrected) and that, for my part, I would evaluate it exactly as I would at the end of the term, with the correction grid and the same requirement protocols. I ended the explanation of this proposal with the following advice: “In your place, I would jump at this opportunity!” And that’s what they did. Almost all of the students turned in this pre-work (which comprised about one-sixth of the final work). I was very happy with the response rate. I completed the pre-correction as promised, annotating students’ work as much as possible, making sure to highlight the positive aspects and telling them what they needed to change to get a better grade at the end of the term. In truth, from that year on, I noticed a visible improvement in the overall motivation for this activity, and I finally got finished college-level assignments from almost all of my students at the end of the semester.

As a teacher, I use the knowledge that stems from research results, to introduce them in my practice and thus adjust my interventions.

As eating whets the appetite, I then wondered how I could get students to further their motivation/engagement/performance for this task. Inspired by the various research papers I had recently read about the use of ICTs in teaching, I began to record videos lasting approximately five minutes on the feedback of the pre-corrections I did during reading week (Cabot, 2018). Once again I was able to observe an increase in the quality of the final work, although the improvement was less marked than the previous one. For each video sent by email, I asked the students to tell me if it had been useful. Many told me that they preferred this type of feedback because they liked me to talk to them about their work personally. And yet, that is what I was doing in writing! However, it seems that the oral version had a greater effect on the educational relationship. The videos were being hosted on my secure YouTube channel, and I noticed that students had each viewed their video several times, some even more than twenty times, which reassured me about the amount of time that I had invested on this project. Since this last change, I am delighted with the quality of the final work being handed in by the students, and I have a clear sense of having helped students advance further in their college-level learning skills.



CONCLUSION

I am satisfied with all the improvements made to the synthesis work inspired by the research results on motivation and engagement. I really feel that I am making learning easier for my students and increasing the pleasure that they derive from learning. I must admit that I needed a little bit of motivation to introduce these study modifications! As humans, we are inherently lazy and do not like to expend energy to change a comfortable reality, even if it is more or less effective or relevant. I realize that this investment in change allows me to be even more comfortable in my practice, because I feel consistent with my values and I finally get the results I expected with the synthesis work. And I do not think the work is finished yet! I will now focus my energy on other elements of my practice that I could improve.

In fact, I recently added to my practice a small ingredient to stimulate usefulness, inspired by the work of Hulleman and his collaborators (2010). In the conclusion of their synthesis work, I asked the students to include an explanation of the usefulness that this work had for them. I even added a few points, indicating that I wanted them to take their time to elaborate a little more about this explanation, to customize it, and not just to mention that “it allowed me to learn.” I repeated this directive several times during the school term, to make sure that they thought about it carefully as time progressed. The conclusions that the students handed in were in fact quite remarkable! Not only did this exercise foster motivation in them, it also nourished mine. I now enjoy correcting this stack of final drafts. I feel proud of the students when reading their work. And it has given me an idea for a new research question: how does an increase in student motivation influence the motivation of their teacher? ◆

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